

REMARKS

Claims 1-12 are pending. Upon entry of this response, claims 1-13 will be pending, claims 1 and 7 having been amended and claim 13 added in the response. The amendments and new claim find support in the specification.

Allowable Subject Matter/112, 2nd Paragraph Rejection

Claims 6-12 were indicated as allowable if rewritten or amended to overcome the 112, 2nd paragraph, rejections. Claim 7 was rejected under 35 U.S.C. 112, 2nd paragraph, as allegedly being indefinite.

Claim 7 has been amended to recite "said outer layer comprises 40 to 70 parts by weight of a styrene resin and 60 to 30 parts by weight of a propylene- α -olefin random copolymer." Accordingly, the rejection is believed to be overcome. Withdrawal thereof is requested.

Hence, claims 6-12 are believed to be allowable.

Specification

The specification was objected to as including informalities requiring correction. The specification has been amended to correct a typographical error. Accordingly, the objection is believed to have been overcome. Withdrawal thereof is requested.

112, 1st Paragraph, Rejections

Claims 1-12 were rejected under 35 U.S.C. 112, 1st paragraph, as allegedly not providing enablement for petroleum resin having softening point less than 110°C and an amount less than 5 wt% and higher than 40 wt%. Applicants traverse the rejections.

Claim 1 as amended recites "wherein an amount of said petroleum resin is from 5 to 40% by weight based on a blend of said polypropylene-base resin and said petroleum resin." The amendment finds support in the specification, page 15, ll. 8-13, for example.

Applicants submit therefore that the claims provide enablement for the petroleum resin according to embodiments of the present invention. Withdrawal of the rejections is therefore requested.

103(a) Rejections

Claims 1-5 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Peiffer (U.S. Patent No. 5,573,717). Applicants traverse the rejections.

Claim 1 is directed to a heat-shrinkable polyolefin-base film comprising a polypropylene-base resin, a petroleum resin, and a cyclic polyolefin in the claimed amounts. The claimed film has a percentage of thermal shrinkage of at least 50% at 95°C x 10 seconds in the primary stretching direction of the film and a percentage of spontaneous shrinkage of less than 0.5% in a direction perpendicular to the primary shrinking direction after one week at 40°C. The claimed film advantageously provides an improved thermal shrinkage percentage at low temperatures over that of conventional polypropylene films. See, e.g., specification, page 3, ll. 16-21.

Peiffer discloses a process for producing a non-transparent oriented polyolefin film. See, e.g., Peiffer, claim 1.

The Office Action admits that Peiffer does not disclose the thermal shrinkage of embodiments of the present invention. The Action however asserts that it would have been obvious for a person of ordinary skill to optimize thermal shrinkage by varying the thermofixing temperature or by eliminating the thermofixing step of Peiffer. See Office Action, page 4, item (7). Applicants disagree.

Applicants have discovered that the claimed film has improved thermal shrinkage in the primary stretching direction over the film of Peiffer. Applicants replicated Example 1 of Peiffer and obtained the following thermal shrinkage percentages at 95°C x 10 seconds and at 80°C x 10 seconds, as shown in Table I below.

Table I: Thermal Shrinkage of Peiffer Film

	Primary stretching direction	Direction perpendicular to primary stretching direction
Thermal shrinkage (%) @ 95°C x 10 seconds	2.0%	0.6%
Thermal shrinkage (%) @ 80°C x 10 seconds	0.4%	0.0%

In contrast, the claimed film according to embodiments of the present invention has much improved thermal shrinkage in the primary stretching direction, as shown in the specification, page 35, Table 1, Example 1, for example. Portions of which are reproduced here in Table II for the Examiner's convenience.

Table II: Thermal Shrinkage (of Example 1) of Applicants' Claimed Film

	Primary stretching direction	Direction perpendicular to primary stretching direction
Thermal shrinkage (%) @ 95°C x 10 seconds	54.5%	1.0%
Thermal shrinkage (%) @ 80°C x 10 seconds	22.5%	0.0%

Accordingly, the thermal shrinkage percentage in the primary stretching direction of Applicants' claimed film is much improved over that of the film of Peiffer. Therefore, a person of ordinary skill would not have determined the improved performance of Applicants' claimed film from Peiffer's disclosure. Such a teaching is only found in Applicants' disclosure.

Since the multilayered film of Peiffer's Example 1 has much less thermal shrinkage than Applicants' claimed film, there is neither teaching nor suggestion in Peiffer that a single base layer would perform any better. The teaching of improved thermal shrinkage in a single layer is only found in Applicants' disclosure.

For at least these reasons, Applicants submit that claims 1-5 are not obvious over Peiffer. Withdrawal of the rejections is therefore requested.

CONCLUSION

The claims are believed to be allowable. An early and favorable action to that effect is respectfully requested.


The Examiner is invited to contact the undersigned at 202.220.4200 to discuss any matter regarding this application.

The Office is authorized to charge any fees or credit any overpayment to Deposit Account No. 11-0600.

Respectfully submitted,

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